Abstract

A switching apparatus distributes incoming calls to end point terminals that belong to a service group and that interact with the switching apparatus via messages. The messages query the end point terminals by specifying a range and asking those end point terminals that meet a criterion associated with the range to respond. By iteratively narrowing the range, for example, in a binary search fashion, one of the end point terminals is selected. In one embodiment, the range relates to fixed sequence IDs of the end point terminals and the criterion relates to whether an end point terminal is idle or not. In another embodiment, the range incorporates the idle/not idle state of the end point terminals by specifying idle time durations.